DOCUMENT RESUME

ED 417 758 IR 056 994

TITLE Creating and Managing a Library Web Page: The Practicalities.
PUB DATE 1996-00-00
NOTE 11p.; Topic E in: Proceedings of the ITEC Virtual Conference: A Meeting of the Minds (Australia, 1996); see IR 056 989.
PUB TYPE Reports - Descriptive (141) -- Speeches/Meeting Papers (150)
EDRS PRICE EDRS Price MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Computer Networks; Computer System Design; *Computer Uses in Education; Educational Equipment; Educational Technology; Elementary Secondary Education; Foreign Countries; Guidelines; Information Management; *School Libraries; Strategic Planning; *World Wide Web
IDENTIFIERS *Web Pages

ABSTRACT

Two papers addressing the practicalities of developing and managing a Web page include: "Managing a Web Node" (John Messing); and "Creating and Managing a School Library Web Page" (John Carr). The first paper discusses five areas in planning/managing a Web page: skills required; hardware and software requirements; planning process; pitfalls to avoid; and maintenance requirements. The second paper outlines six lessons for creating and maintaining a school library Web page. (AEF)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 417 758

TOPIC E

CREATING AND MANAGING A LIBRARY WEB PAGE:

THE PRACTICALITIES

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY HAS BEEN GRANTED BY

Lyn Hay
James Henri

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2A

IR056994

BEST COPY AVAILABLE

MANAGING A WEB NODE

John Messing
Senior Lecturer in Information Technology, School of Information Studies,
Charles Sturt University, Wagga Wagga, New South Wales, Australia.

This paper is being provided on the WWW at **<http://www.csu.edu.au/faculty/sis/misc/messing/sih/TLall.htm>** in three modes: As a paper document; as an Internet document which looks basically like the printed version but can be read on the screen; and as an Internet enhanced document with links to demonstrate some of the points that are being made. The text of all three is essentially the same except for small changes to accommodate the Internet links.

INTRODUCTION

Like most other processes to do with computers, planning and knowing what questions to ask, are important facets of getting a web node up and running. Some people do argue that what makes the web such an exciting instrument of information exchange is the lack of controls and standards. That may be true from the whole perspective, although my personal view is that some degree of order is much better than total anarchy, but it certainly isn't true from the point of view of managing an individual node. Without proper planning, a great deal of time and energy can be wasted. The end result will almost certainly be some degree of disappointment.

At least five different areas are of particular significance in this process. They include the:

1. skills required;
2. hardware and software requirements;
3. planning process;
4. pitfalls to avoid; and
5. maintenance requirements.

Failure in any of these areas can end up in something that becomes less effective than it should. One of the things that rapidly becomes clear is that embarking on such a project is usually a team effort. Very few people have all of the skills and more importantly, the time, to be able to do it alone.

SKILLS

Publishing on the web is really not that mysterious. It is a fairly straight forward process. Despite the fear that many people have that it involves some form of programming, the reality is that it doesn't!

What skills are required?

First and most definitely, foremost, is an understanding of the concept of hypermedia. In particular, the use of linking for 'navigation' purposes. This is not a difficult concept and using hypermedia systems such as the web will certainly give one a feel for what is happening. While providing links is the part that gives all the flexibility, it is also the part that can result in disorientation, confusion and sometimes frustration. This user disorientation has been a widely reported phenomenon of using hypermedia information systems. The literature is plentiful but luckily, there are some simple things that can be done to minimise this problem.

While some people may debate my choice of second most important skill, I'm convinced that the sites that attract the most initial attention are those which have been designed by people with a good graphic design sense. Note that this does not necessarily involve drawing skills. Graphic design can be applied to ordinary type as well as images. Very often this involve a particular member of the team to actually design layouts and graphics. Getting noticed is the first step to being listened to.

For people who do not have those skills, the web is an excellent teacher. Browsing through sites and making a note of desirable features is a great starting point. You may even be able to use parts of other people's designs.

Finally, there are a group of implementation skills which include being able to mark up a document using the HyperText Markup Language (HTML), configuring software to take the web documents and other small tasks associated with getting the hardware and software to do as it should. As in the case of graphic design, it may well be that there is a person or several people, in the team who can carry out the tasks required. HTML markup is an easy task that can be done using a variety of specialist editors or any word processor. It is actually a throwback to the word processors and text editors of the 70's and early 80's.

HARDWARE AND SOFTWARE

When some people are just beginning to feel comfortable with terminology like Internet and hypermedia, along comes a new set of confusing terminology, Intranets, firewalls, proxy servers etc. All have implications for the way an organisation sets up web access but who really knows enough about them at this stage? There are many things to consider here under the general question of what hardware and software are required to create a web node. The very first issue is one of where is the data for the node going to be placed. In order for the Internet to be able to link to this node, it must be placed on a machine which is called a web server. Most schools would not have such a machine or be in a position to dedicate one of their computers to perform such a task.

An Internet Service Provider is one solution. Some organisations that have close links with particular local schools may have a web server and be willing to give limited access. That is one thing that Charles Sturt University has done for the schools in its local region.

An intranet (publishing just within the local machines of the organisation) is another possibility but it requires both software and more importantly, computing skills that most schools do not have. Hiring a consultant is one expensive solution, staff development is another but also costly.

Being an Internet browser costs, but not like being an Internet publisher. Sometimes these costs are hidden or absorbed by someone else but the cost is still high. Whether the return justifies the cost is a question that must be addressed.

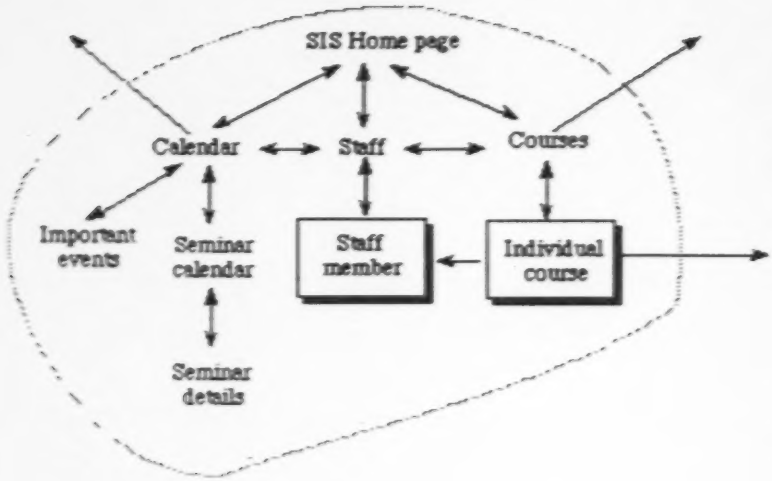
THE PLANNING PROCESS

Having gone down the path of making sure that there are the right people involved and that there are clear goals that the project is going to aim for, the next important step is the planning of the web node.

Content map:
To start with there needs to be a master plan of all the information that is going to be placed on the web and how each document relates to each other. Some hypermedia workers refer to this as a 'Content Map' this may be developed using the traditional structured approach that some programming theorists recommend or it may be like a brainstorming session where things are written all over the place and linked with arrows.

For example, part of the content map for the School of Information Studies web pages would look like Figure 1 on the following page.

The sections marked with the shadow boxes lead to other web pages which are the beginnings of their own structure. The boundary of the system is shown as well as links to documents that are outside. These documents may be part of some CSU web pages or indeed, anywhere in the world. The difference between this type of link and most of the other internal ones, is that those external documents do not provide a direct link back.



Granularity:
One of the most difficult aspects is working out how to break up the information into appropriately sized chunks. This is called the granularity. Systems where the information is broken down into too many small sections can be frustrating to use and ones which are too large take too long to load for the reader to get the small section of information that they want. There are no hard and fast rules about this, only a general guideline that the final document should be the smallest complete chunk that makes sense to a reader. Usually about 1-3 screens is a reasonable rule of thumb.

Presentation of the document:
The way that the document is ultimately presented depends on what you as the designer expect the user to do with it. If the information is expected to be down loaded and read/printed on the users local machine then it should probably be just a single link that starts the down load process. If you expect the user to read it on the screen then it will need to marked up using HTML to make it reasonably readable. If there is an element of presentation about it then graphics will be involved and these will have to be prepared for display on the web as well as the marked up document.

In most cases, it is important that the documents conform to some sort of style. This usually affects what users expect to see as part of each document rather than the detail about each page. A style template is a good starting point for the creation of new HTML documents.

User orientation:
It is important to consider navigation and user orientation features as part of the document design. Provide links which allow the user not only to retrace the path but to get back to some standard locations such as the main page, an index page or other reference page. Some designers prefer to place these at the bottom of a document, others near the top and as if to be sure, some place them at top and bottom!

There should always be some form of page identification near the beginning which gives the page a title and some indication of where the user actually is in the system. Providing other details such as the timeliness of the information (if it is likely to date) or indications of things that have been added recently are good design tools to improve the user satisfaction with the way it is presented. These are all elements of the style guide for the documents.

PITFALLS

There are lots of traps for the unwary. The following (not in any order of significance) are some:

Overdoing the graphics:
Large quantities of graphics take up a great deal of space and hence transmission time. There is a skill involved in using eye-catching graphics yet keeping the file size to a minimum. Look at creating thin graphic rulings, small images, using tables or background patterns that add impact without the high overhead of stunning pictures. One technique that sometimes works with both graphics and large passages of text is to create an abbreviated version (thumbnail for graphics, abstract for text) and then provide a link to allow the user to select the full size version. Good design would give the user an idea of file size if it gets to be more than 100K. There are plenty of examples of this technique.

Also consider what happens to the look and function of the document if the user turns autoload of images off. If the only links that are provided are graphical icons without text alternates, then by turning images off, the user may not be able to follow the intended links.

Have someone that knows something about computer graphics advise on the quality of the graphics. Images that look great on the computer that they were created on can easily turn out quite disappointing on the web because simple precautions about colour depth and colour palette were not taken.

Poor file naming conventions:
One of the first things that every web designer needs to do is to develop a systematic method of naming files so that the file name conveys some meaningful information. This is a bit of a problem on IBM clones because of the restrictions on file names but it still needs to be done. Without a system, files can get 'lost' in the crowd and at worst, using duplicate file names will create errors which may not show up for some time. There is also nothing worse than having to go through the links in a large number of web documents and make changes to file names. Murphy's law decrees that no matter how thorough you are, you will miss some of them!

Poor organisational structure for the location of files:
Think about the subdirectory structure and where the files are going to be placed. Putting everything in the one directory has both advantages and disadvantages. Having to edit links because the location of a document has been changed is as tedious and error prone - a chore as that of re-doing file names.

Disappearing links:
When using links to pages that are maintained by someone else there is never any guarantee that those locations will be maintained at their present location. A good management practice is to have a separate document which just provides a list of links that your system uses. These links can then be periodically checked that they still exist. Designing a system and then getting the 404 Fatal error message is quite demoralising. If you are forced into moving some of your pages, provide a 'forwarding' document to let the user know that the location has changed and a link to the new location to take them there.

MAINTENANCE

Creating is the exciting part but unless there is some provision for regular maintenance, the one-off attempts never seem to last long. Mention has already been made of providing currency information (date last modified, last new entry added etc.), trying to let users know what is new and regularly testing links to make sure that they are still active.

It's at the maintenance stage that poor decisions in the planning become evident. Think about maintenance at the very beginning, not after the system is up and running. New documents will have to be added, old ones removed to some archive, links updated etc. Examine the structure of the system to see what sort of procedures need to be followed so that links do not suddenly fall over. What provisions are there for letting the manager know when there are problems? What provisions are there for evaluations or suggesting improvements/changes?

SOME FINAL ADVICE

Setting up any computer information system whether it be a simple database for names and telephone numbers or a web publishing effort that involves many people requires planning and an understanding of what will be involved. While the challenge of 'getting in there and doing it' may be a good motivator, the trial and error methodology is often an inefficient approach. Get good help and learn to ask enough questions so that the implications of what you are doing are clear.

John Messing is a Senior Lecturer in Information Technology
at the School of Information Studies, Charles Sturt University,
Wagga Wagga, N.S.W., Australia.
John can be contacted via email at <jmessing@csu.edu.au>.

CREATING AND MAINTAINING A SCHOOL LIBRARY WEB PAGE

John Carr
Teacher Librarian, Whangamata Area School, New Zealand

Whangamata Area School has a roll of 600 students from Year 1-13. It has had Internet access on one computer in the school library for 18 months. The School Library Home Page is located at **<http://mtxlink.co.nz/whangamata/web.htm>**.

In May 1995, as a newcomer to the Internet, I remember being amazed by the speed and immediacy of the new medium when I received an email message from a teacher in Canberra congratulating New Zealand on winning the Americas Cup, a good 3 days before the deciding race was sailed.

As a result of that experience I wasn't as surprised as I should have been, 12 months later, when I received another email message from Australia inviting me to present a conference paper on 'creating and maintaining library web pages' a good 30 minutes before I had taken my first tentative step towards creating my first ever 'page' for a planned web site for the Whangamata Area School Library.

At that stage the conference was still 5 weeks away and consoled by the knowledge that in the current IT environment 3 weeks is about as long as it takes to become an 'expert' in almost anything, I decided to 'fast track' my plans to create the site. The Whangamata Area School Library site is the result, located at **<http://mtxlink.co.nz/whangamata/index.htm>**.

The following list contains some of the more important lessons learned along the way:

LESSON 1: DON'T DO IT UNLESS YOU NEED TO

If you are to get through those times when the creation of your first web page becomes a frustrating task fraught with unexpected, time consuming, and even marriage threatening complexities, you will need some very good reasons for doing it.

At Whangamata Area School two of the more common reasons for creating school web pages, namely to advertise the school, or to present students' work to a wider audience, were not good enough.

Being the only school in a community that is thirty very hilly and winding kilometres from the next town, the need to advertise is not as strong as it is in most city schools, and students' publishing needs were being adequately met by using existing web sites such as the ones listed below.

1. ***PRESS RETURN Scholastic Network's Online Magazine*** located at **<http://scholastic.com/public/Network/PressReturn1.1/Press-Return.html>**;
2. ***BIG BUS E-ZINE*** located at **<http://www.gulf.net/~ptlg/BIGBUS.html>**;
3. ***KIDPUB*** located at **<http://en-garde.com/kidpub/intro.html>**; and
4. ***KIDS SPACE*** located at **<http://plaza.interport.net/kids_space/>**.

BEST COPY AVAILABLE

There was however one very good reason for establishing a school library web page, and that was the need to integrate Internet use into existing learning programs more easily and in a way that was less intimidating to teachers and less demanding of their time.

Despite having their awareness of, and in many cases their excitement for, the learning potential of the Internet raised by a one day course on the subject, few teachers in the school were making use of the school's access to the Net through the school library. Lack of time and lack of confidence to

locate and integrate useful Internet resources and projects into their existing programs seemed to be the main reason for this.

The Whangamata Area School Library web page is primarily a service which tries to address some of these problems. The idea has been, in collaboration with the teachers concerned, to create separate web pages containing links to a few Internet sites which are directly relevant and suitable to a particular topic and group of students. Although still in its infancy, the service has been very well received by teachers and students and has considerably broadened and intensified demand for Internet access in the school. It has also proved to be a popular starting point for some local parents and children who have Internet access at home.

The ***Room 10 Radical Researchers*** page at **<http://mtxlink.co.nz/whangamata/r10.htm>** was created for a small group of 7 and 8 year olds researching individual topics for a class newspaper. It has proved so popular with general library users of all ages that it will probably remain on the site long after the class newspaper has been published and forgotten.

LESSON 2: UNLESS IT WAS PUBLISHED AFTER 1998, THE BOOK IS OUT OF DATE

Like any other middle aged teacher librarian with an unbounded enthusiasm for the potential of the Internet as a learning tool, my first step in learning how to create web pages was to buy an expensive book about it.

I soon realised that the book, published in 1995, had passed it's 'use by' date some time before the first edition had got to the printer.

The learning , and manual inputting, of lots of strange Hyper Text Mark Up Language (HTML) codes may have been an essential part of 'web authoring' way back in 1995 but things have moved on since then and the best place to keep up is on the 'Net' itself.

Sophisticated yet easy to use programs for making web pages, without having to learn HTML as a second language, are available on the Internet. Two good examples of such programs for Windows are: ***Hot Dog Professional*** at **<http://www.sausage.com/soft1.htm>** and ***Microsoft Front Page***. A good site to get Web page editors for Macintosh computers can be found at the ***Macintosh Based HTML Editor's*** site at **<http://the-inter.net/www/future21/medit.html>**.

A keyword search for 'HTML' will give you more links to web page authoring advice, and discussion groups than you could read in a lifetime. One such site is ***The Art of HTML*** located at **<http://www.taoh.com/index.htm>**.

LESSON 3 : GET SOMEONE ELSE TO DO THE WORK

The construction and regular maintenance of library web pages is a time consuming business and by involving your teachers and students in the process as much as possible you will be doing yourself, and them, a big favour.

Simply asking teachers to comment on the suitability of selected Internet sites to the learning needs of their students has, at Whangamata, already proved a useful first step in getting teachers thinking more pro-actively about using the Internet.

Luke Warm and Associates are a small group of interested students learning quickly how to put web pages together. It is anticipated that these students will play an important role in the wider 'spread' of web authoring skills around the school. They currently update the ***Luke Warm's 'Way Cool' Hot sites*** page at **<http://mtxlink.co.nz/whangamata/luke.htm>** and it is intended that they will eventually takes over most of the technical work involved in creating new pages and maintaining the site. Some of the more entrepreneurial members of this group have hopes of following the students at School in Glasgow Kentucky and construct web pages for local businesses

BEST COPY AVAILABLE

on a commercial basis... having negotiated a satisfactory commission deal with the teacher librarian of course.

TIM,.. I DON'T CARE IF IT BRINGS IN AN EXTRA 25,000 "HITS" A DAY TO OUR SCHOOL LIBRARY HOME PAGE... I WANT YOU TO REMOVE THE WORD "CYBERSEX" FROM THE TITLE IMMEDIATELY!
LUKE WARM & ASSOCIATES
CARR

Encouraging students and teachers to 'bookmark' useful Internet sites when they find them, and then putting the details on a 'Useful Websites' database can provide a very handy tool when looking for good educational resources to link to your web pages.

LESSON 4: CORRECT PUNCTUATION IS NEXT TO GODLINESS

The worst thing about the Internet is the way it has dumped a whole lot of previously unused punctuation into our written language, and is totally unforgiving when we use it incorrectly.

Getting the punctuation absolutely correct the first time can save a lot of time and frustration when putting web pages together. When saving images make sure the file names don't have any upper case letters in them, if your Internet provider's system is the same as mine it could save you hours.

LESSON 5: GET YOUR GIFS IN ORDER

The use of background textures, page dividers, buttons and icons on web pages can be very useful, particularly in providing graphic clues for younger students, or, as in the case of this page , to try and create a serious and sombre academic tone in spite of the text.

Such images, which are freely available on the Internet, should be catagorised and viewed in a way that enables the web author to compare many such images on the screen at once. Use of a simple image viewing and cataloguing program to do the job.

Two useful sites for downloading web page images are: 'Home Page Add Ins' at *Macintosh Based HTML Editor's* located at <http://the-inter.net/www/future21/graph.html> and *HTML Stuff* at <http://www.det.mun.ca/staff/triche/HTML.htm>.

LESSON 6: DON'T WORRY ABOUT THE 40 MILLION

If all the Internet hype can be believed there is a potential global audience for the Whangamata Area School Library web pages of over 40 million people! What's more, by the year 2000 (at current growth rates) every human being and a good proportion of the more intelligent animals on the planet will be able to access the site.

Such statistics make it easy to focus attention on using the web page to communicate your message to a global audience, and easy to forget that a lot of the real power of a school library web page lies in its ability to communicate with small groups of people or even individuals within your own school community.

The Whangamata Area School Library web pages at the moment act primarily as a bridge to help particular teachers and their students get into the Internet and use its vast learning resources. Those particular 620 students and teachers are the target audience, and if the other 39,999,380 Internet users want to visit, that's fine...as long as they all don't do it at the same time!

John Carr is Teacher Librarian at Whangamata Area School in New Zealand.
John may be contacted via email at <jcarr@voyager.co.nz>.